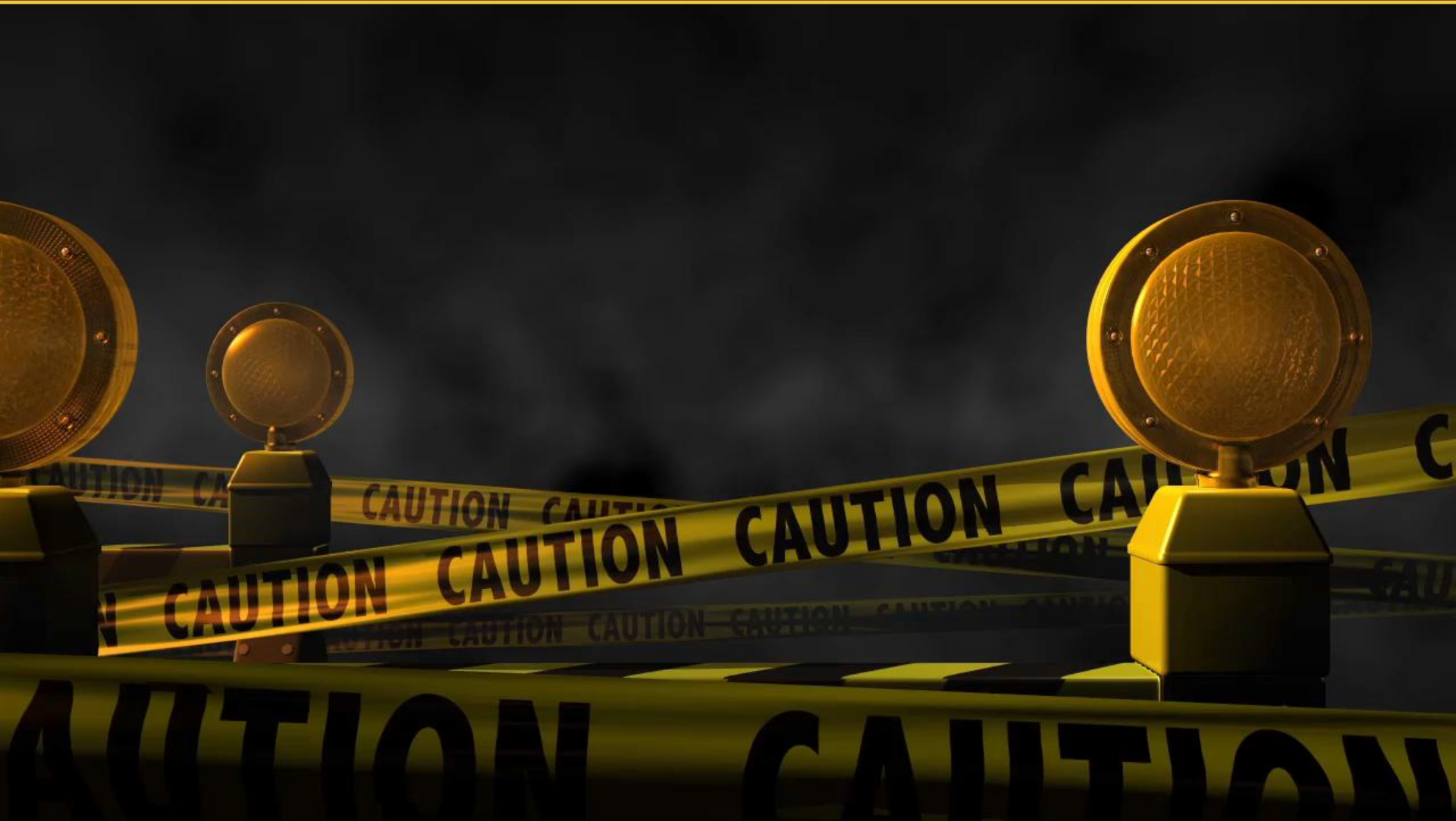
GLOBALLY HARMONIZED SYSTEM for HAZARD COMMUNICATION



Outline

- GHS overview
- OSHA's GHS activity
- Proposed changes to the Hazard Communication Standard
- Current status of the proposed standard
- Impact on Safety professionals

GHS Overview

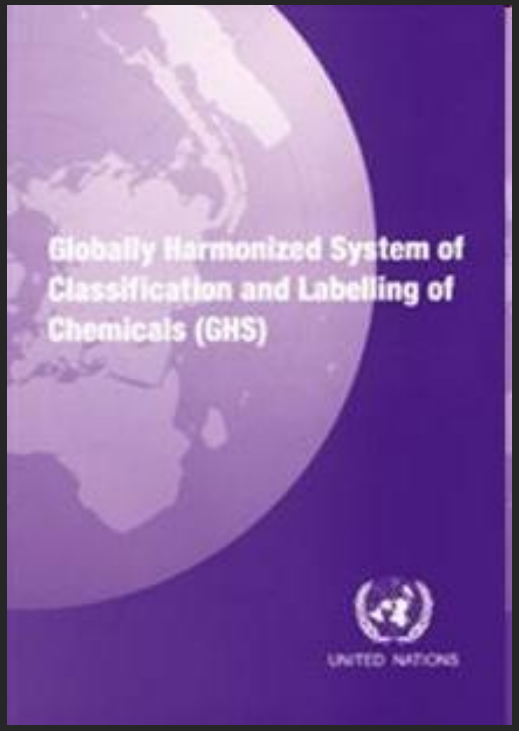
"Globally Harmonized System (GHS) Of Classification And Labeling Of Chemicals"

- United Nations guidance for a uniform (harmonized) hazard communication system
  - Initiated at the 1992 United Nations Conference on Environment and Development (UNCED)

GHS Overview

GHS "Purple Book"

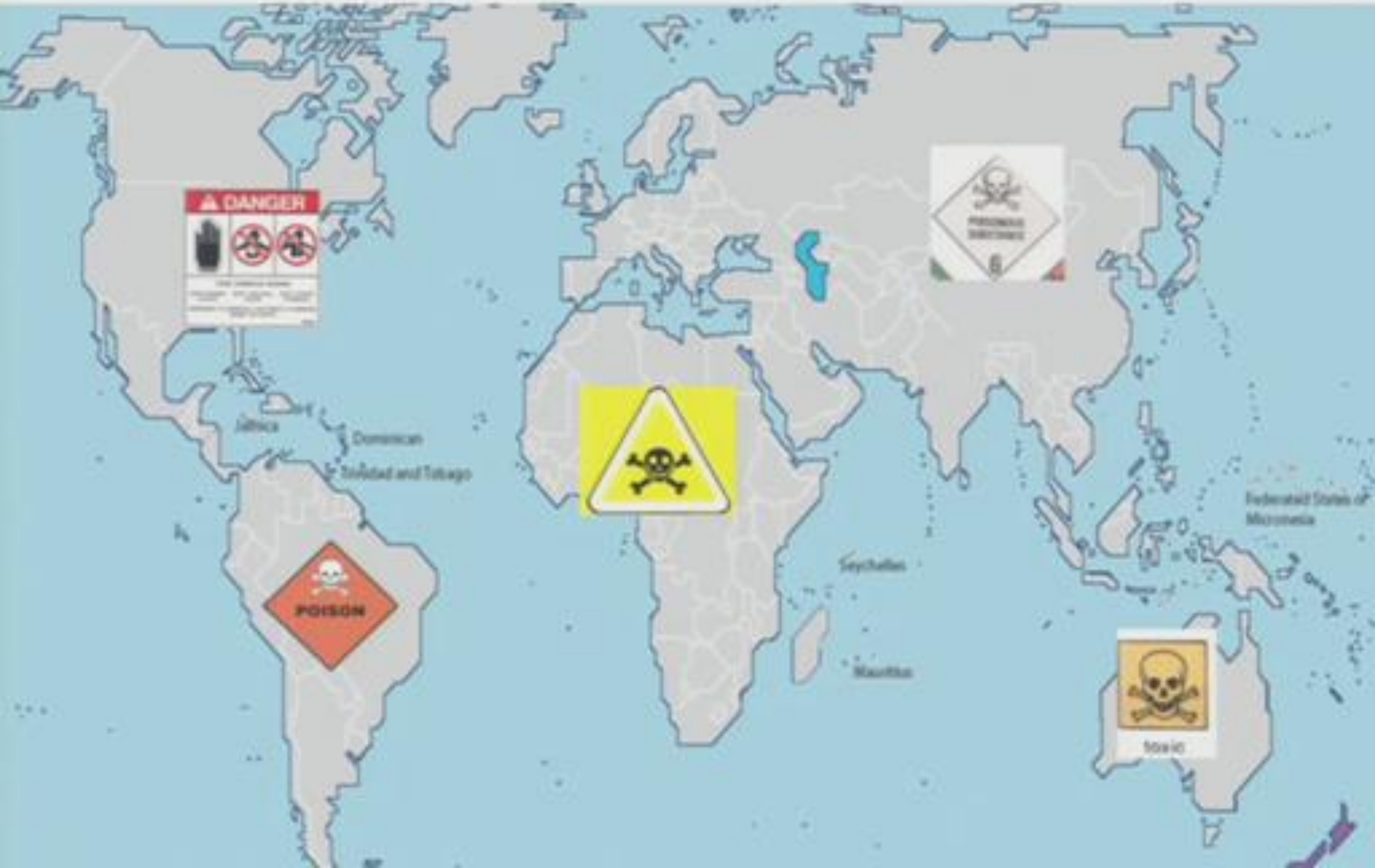
- Elements
  - Harmonized criteria for classifying substances and mixtures according to their health, environmental and physical hazards
  - Harmonized hazard communication elements, including requirements for labeling and safety data sheets.



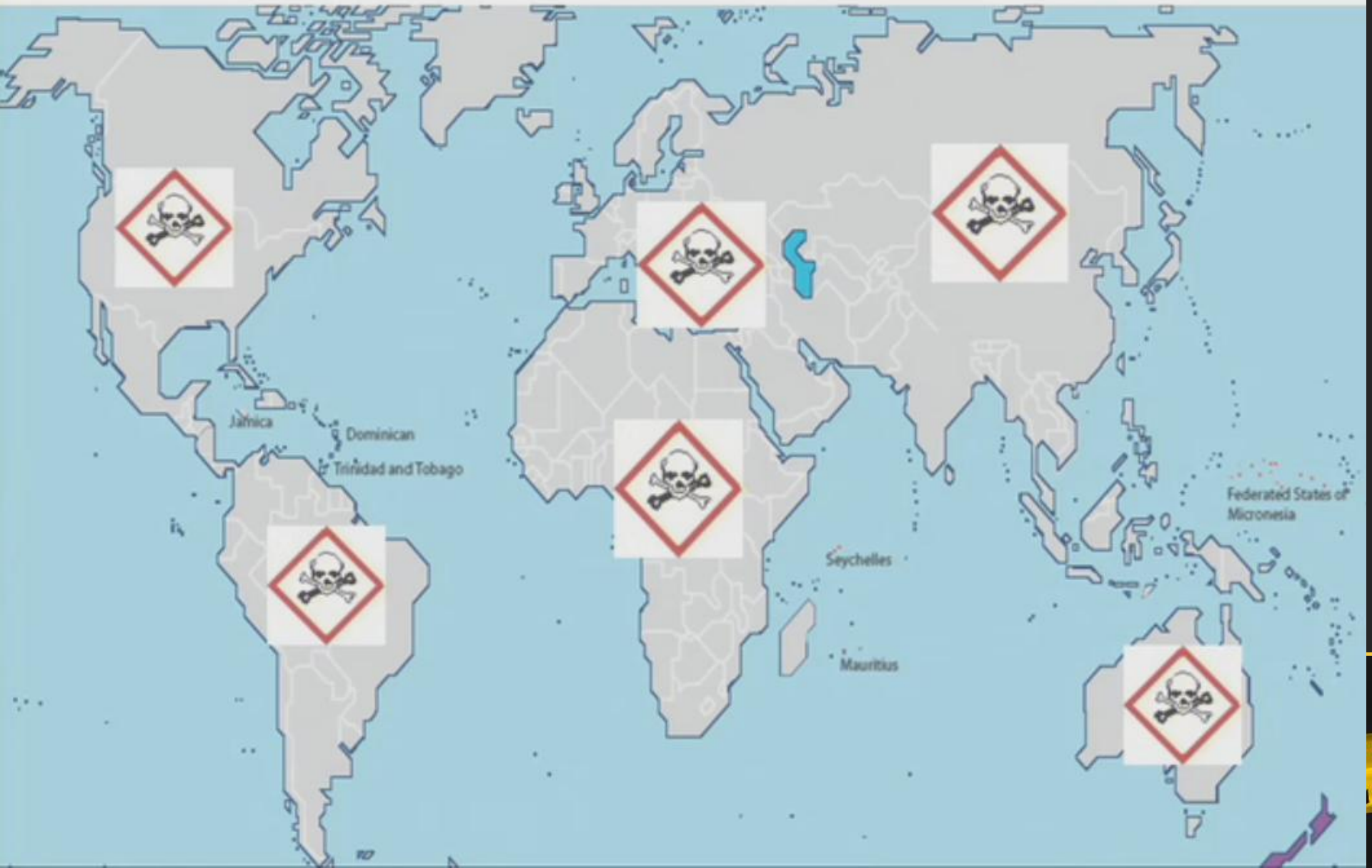
GHS Overview

- Justification – why?
  - Label requirements differ, requiring multiple labels for the same product
  - Hazard definitions are not consistent
    - Toxicity, Flammability
  - Globally over 100 diverse hazard communication regulations for their products globally
    - Regulatory compliance is complex and costly
    - Barrier to international trade in chemicals

Why is the GHS Important?



Why is the GHS Important – The Vision

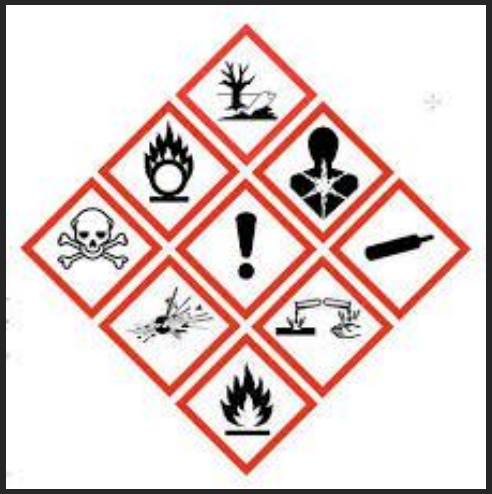


GHS Overview

- Key Guiding Principles of the Harmonization Process
  - Protection will not be reduced
  - Will be based on intrinsic properties (hazards) of chemicals
  - All types of chemicals will be covered
  - All systems will have to be changed
  - Involvement of all stakeholders should be ensured
  - Comprehensibility must be addressed

GHS Hazard Classification

- Defined criteria are used to assign a hazard classification
  - Physical Hazards
    - 16 categories
  - Health Hazards
    - 10 categories
  - Environmental Hazards



GHS Hazard Classification

Physical Hazards (16)

- Explosives
- Flammable Gases
- Flammable Aerosols
- Oxidizing Gases
- Gases Under Pressure
- Flammable Liquids
- Flammable Solids
- Self-Reactive Substances
- Pyrophoric Liquids
- Pyrophoric Solids
- Self-Heating Substances
- Substances which, in contact with water, emit flammable gases
- Oxidizing Liquids
- Oxidizing Solids
- Organic Peroxides
- Corrosive to Metals

GHS Hazard Classification

Health Hazards (10)

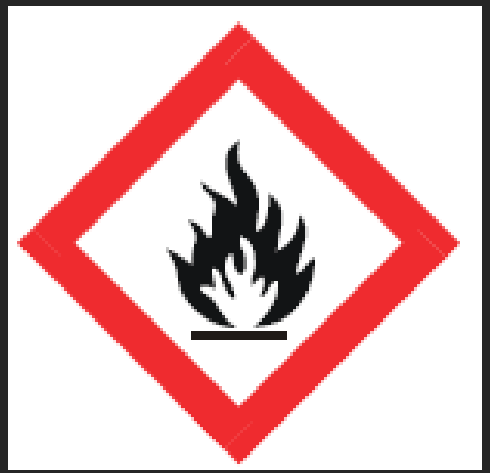
Acute Toxicity
Skin Corrosion/Irritation
Serous Eye Damage/Eye Irritation
Respiratory or Skin Sensitization
Germ Cell Mutagenicity
Carcinogenicity
Reproductive Toxicology
Target Organ Systemic Toxicity – Single Exposure
Target Organ Systemic Toxicity – Repeated Exposure
Aspiration Toxicity

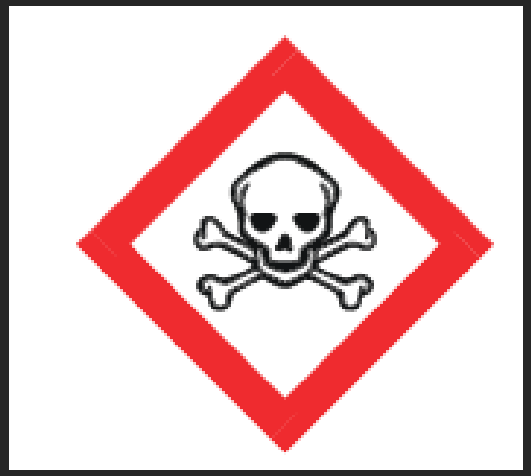
GHS Hazard Classification

- Hazardous to the Aquatic Environment
  - Acute aquatic toxicity
  - Chronic aquatic toxicity
    - Bioaccumulation potential
    - Rapid degradability

GHS Hazard Communication

- Labels
  - Symbols (hazard pictograms) with red border
    - Examples:





GHS Hazard Communication

- Labels (cont.)
  - Nine symbols
    - Includes “Environment”

Flame	Flame over circle	Exploding bomb
		
Corrosion	Gas cylinder	Skull and crossbones
		
Exclamation mark	Environment	Health Hazard
		

GHS Hazard Communication

- Labels (cont.)
  - Signal Words
    - “Danger” or “Warning”
  - Hazard Statements
    - Example: “Toxic if swallowed”
  - Other
    - Precautions, identification, supplier, supplemental

GHS Hazard Communication

- Labels (cont.)
  - GHS Label Elements for Flammable Liquids

Table 3: GHS Label Elements for Flammable (and Combustible) Liquids

	Category 1	Category 2	Category 3	Category 4
Symbol				No symbol
Signal Word	Danger	Danger	Warning	Warning
Hazard Statement	Extremely flammable liquid and vapor	Highly flammable liquid and vapor	Flammable liquid and vapor	Combustible liquid

GHS label example

ToxiFlam (Contains: XYZ)

Danger! Toxic If Swallowed, Flammable Liquid and Vapor

Do not eat, drink or use tobacco when using this product. Wash hands thoroughly after handling. Keep container tightly closed. Keep away from heat/sparks/open flame. – No smoking. Wear protective gloves and eye/face protection. Ground container and receiving equipment. Use explosion-proof electrical equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Store in cool/well-ventilated place.

IF SWALLOWED: Immediately call a POISON CONTROL CENTER or doctor/physician. Rinse mouth.

In case of fire, use water fog, dry chemical, CO_2 , or "alcohol" foam.

See Material Safety Data Sheet for further details regarding safe use of this product

MyCompany, MyStreet, MyTown, NJ 00000, Tel: 444 999 9999

New OSHA rule

Major changes to the Hazard Comm Standards

- Changed “hazard determination” to “hazard classification”
- Changed “MSDS” to “SDS”
- Changed definitions to comply with GHS
- Labels for shipped containers must have GHS information
  - Workplace labels may be GHS labels, or other labels that identify the material and hazard
- Safety Data Sheets with 16 sections
  - May include guidance for transportation information and environmental hazards

New OSHA rule

- Effective dates
  - Two years after final rule
    - Employee training on new labels and safety data sheets
  - Three years after final rule
    - Chemical manufacturers, importers, distributors, and employers in compliance with all modified provisions

OSHA interpretation

- GHS labels comply with current OSHA requirements
  - Standard Interpretation 10/06/2009 - Using the Globally Harmonized System (GHS) to Comply with OSHA's Hazard Communication Standard
  - http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=27218

Impact on Safety Personnel

- Become familiar with the new system
- Collect new SDSs as provided by suppliers and incorporate them into the existing MSDS system
- Get new GHS labels for “shipped containers”
  - Employers can use other systems for workplace labeling
- Train employees about new labels and SDS

For your convenience

- Two SDS binders and hanging racks have been distributed to each school for custodians and cafeteria.

Questions?

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